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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,385	07/29/2003	Yi-Lang Ku	67,200-837	6515

7590 09/08/2005

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EXAMINER
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CECIL, TERRY K

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/629,385	<b>Applicant(s)</b> KU, YI-LANG	
	<b>Examiner</b> Mr. Terry K. Cecil	<b>Art Unit</b> 1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 7-29-2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- 1. ☐ Certified copies of the priority documents have been received.
  - 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION*****Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

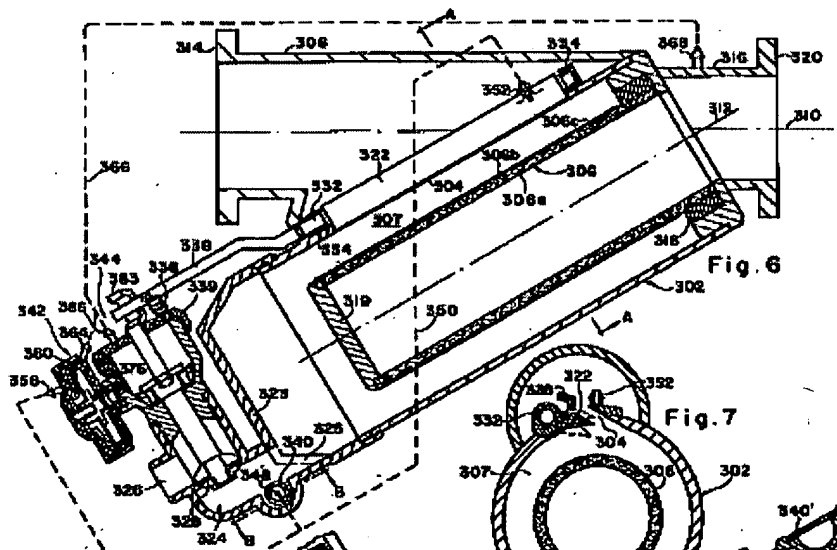
A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Drori (U.S. 4,207,181). Drori teaches a Y-strainer including an elongated conduit 308 having a removable filter 306 within a housing 302 extending at an angle therefrom and a cap 210 for removing the

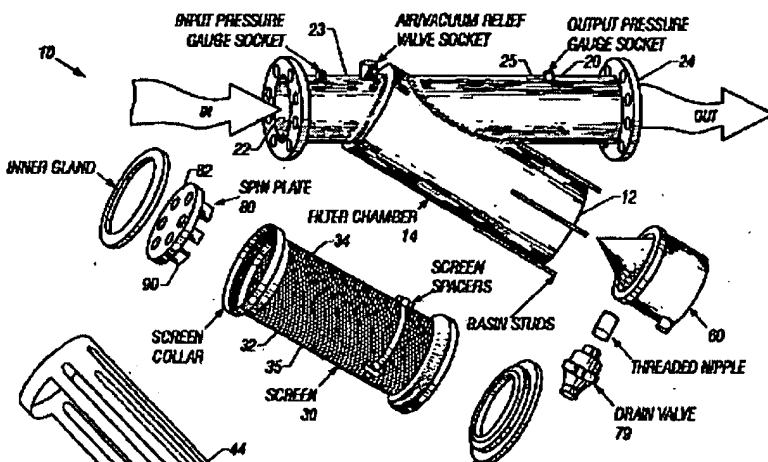


filter [as in claims 5 and 8]. A drain valve is provided at a lower end thereof [as in claims 1-2 and 4]. Flanges 314, 320 are provided at the end of the conduit [as in claim 7]. Both the housing and the

filter can include conical sections at a lower end thereof (see figure 1) [as in claims 3, 6 and 8].

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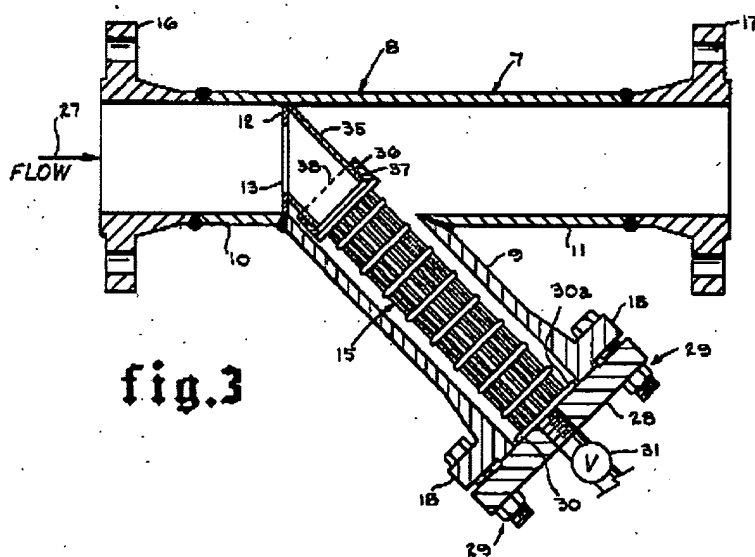
3. Claims 1-2, 5 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Hawkins (U.S. 6,719,900). Hawkins teaches a Y-strainer including a removable filter 30 within a housing



14 extending at an angle of an elongated conduit 23 and including a removable cap 60 and drain valve 79 at a lower end thereof [as in claims 1-2 and 5] Flanges 314, 320 are provided at the end of the

conduit [as in claim 7].

4. Claims 1-2, 5 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Tullier et al. (U.S. 4,051,042). Tullier teaches a Y-strainer including a removable filter 15 within a



housing 9 extending at an angle of an elongated conduit 7 and including a removable cap 28 drain valve 31 at a lower end thereof [as in claims 1-2 and 5] Flanges 16-17 are provided at the end of the conduit [as in claim 7].

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 9-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art (of figures 1 and 2) in view of Drori. Applicant's admitted prior art of figures 1 and 2 teaches the use of a y-strainer in the drain line of both a cooling tower 36 and a wet scrubber 2 and the admitted prior art of figure 3 teaches a removable filter 22 in a filter housing angled from an elongated conduit but does not teach a drain valve in the filter housing. However, teaches a drain valve 328 [as in claims 9-10 and 15-16] controlled by actuator/sensor 344/342 communicating with pressure monitoring nipples 368 and 352 [as in claims 13 and 19]. It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the valve/control means of the Y-strainer of Drori in the Y-strainer of applicant's admitted prior art, since Drori teaches the benefit of automatic filter flushing. As for claims 4 and 20 concerning the differential pressure at which the valve opens, it is considered that such would have been obvious to one ordinarily skilled in the art at the time the invention made and would be a matter of optimization depending upon the desired operating parameters of

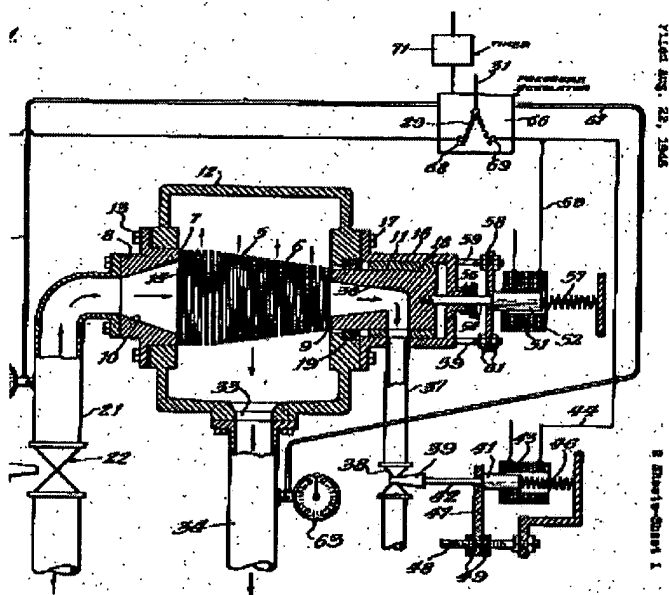
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the system—e.g. flow rate, degree of purification, etc. As for claims 11-12 and 17-18, as explained above, Drori teaches a conduit having a removable cap and a conical filter and housing.

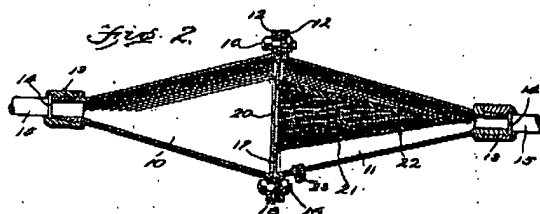
### *Other Pertinent Art*

7. Before amending the claims, applicant should consider the following germane references teach various aspects of the invention:

- Grave (U.S. 2,569,748) teaches a conical strainer that includes first and second pressure monitors (62, 63) and a controller 66 for automatically operating a flush valve 39.



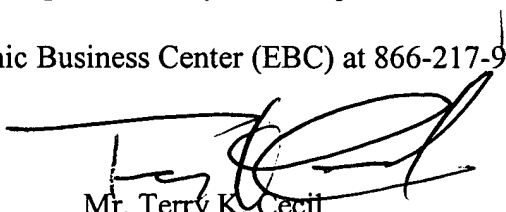
- Byers teaches a straining having an elongated conduit 15 that includes a conical filter housing extending at an angle therefrom and including a conical filter element 22.



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8. Contact Information:

- Examiner Mr. Terry K. Cecil can be reached at (571) 272-1138 at the Carlisle campus in Alexandria, Virginia for any inquiries concerning this communication or earlier communications from the examiner. Note that the examiner is on the increased flextime schedule but can normally be found in the office during the hours of 8:30a to 4:30p, on at least four days during the week M-F.
- Wanda Walker, the examiner's supervisor, can be reached at (571) 272-1151 if attempts to reach the examiner are unsuccessful.
- The Fax number for this art unit for official faxes is (571) 273-8300.
- Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mr. Terry K. Cecil  
Primary Examiner  
Art Unit 1723

TKC  
September 2, 2005